

**METHODS AND APPARATUS FOR AUTOMATIC SYSTEM PARAMETER
CONFIGURATION FOR PERFORMANCE IMPROVEMENT**

ABSTRACT

In one embodiment, the present invention is a method and apparatus for automatic system parameter configuration for performance improvement. One embodiment of the inventive method involves formulating a black box optimization problem, and solving the optimization problem using an enhanced smart hill climbing method. The smart hill climbing method includes both a global and a more precise local search to identify an optimal solution. In one embodiment, one or both of the global and local searches employs a weighted Latin Hypercube Sampling method in combination with importance sampling techniques to yield improved search results